

Your town's subdivision or land use ordinance "standards" should reference the following "street standards", for example:

"Streets shall be designed to move traffic safely and in a way that minimizes environmental impact. Any new street or road approved through the Development Review process must be based upon the standards of this ordinance and the recommendations of the Town Engineer, the Town Planner, and, as requested by the Town Planner, from the Fire Chief and Police Chief, who shall review the project for safety. Design of streets must address pedestrian and bicycle safety and movement. Any applicable requirements in the chapter titled Street Standards shall also be met."

The following "Street Standards" section is to be added as a new section, or incorporated into an existing road policy section:

[Explanatory Note: The following example ordinance provides many tools that can help to conserve habitat and maintain existing habitat functions as roads are developed. This language should be integrated into existing Town ordinances and reviewed carefully for consistency with existing policies. Please note that this language contains many topics that do not have direct habitat implications, but that have been included in this document for the purpose of ordinance clarity and continuity for the reader.]

STREET STANDARDS

Statement of Purpose

The purpose of this Chapter is to establish minimum standards for streets which may be accepted as Town Ways and for streets which shall remain Private Roads. Nothing in this chapter shall be interpreted to mandate road acceptance by the Town Council / Board of Selectmen. The terms street, road and way are used interchangeably in this chapter.

Authority

This Chapter is enacted pursuant to Title 30-A, M.R.S.A., § 3001.

Applicability

- 1 This Chapter shall apply to all streets which shall remain Private Roads and to all streets within the Town to be accepted as Town Ways after the effective date of the amendments to this Ordinance.

- 2 Nothing in this Ordinance shall be construed to prevent the design and construction of streets which meet higher standards, use improved methods or higher quality materials. The determination of the acceptability of other standards, methods or materials shall be made by the Town Council / Board of Selectmen with advice of the Planning Board and Town Engineer.

General Street Standards

1 Street Classification

The size and design needs of new streets shall be based upon the projected number of vehicles they are to carry. All streets shall be classified in the development review process according to the following criteria that include a consideration of residential or mixed use development potential of any future road extensions. Streets with mixed use developments shall be classified by the Town Engineer based on peak hour trip equivalents:

- A. Collector – Street that has the capacity to serve over 150 units.
- B. Local - Street that has the capacity to serve 26 to 150 units.
- C. Minor - Street that has the capacity to serve 25 units or less.
- D. Lane - A secondary access that serves house lots from the rear lot line.

2 Interconnectedness

Dead-end streets are to be avoided. Street design shall allow for proper continuation of streets to adjacent lands and connection to the existing street network. The Planning Board may require one or more right-of-way connections reserved for future road extensions. If this is required, the number of such connections shall be proportional to the magnitude of the proposed development. Dead ends are allowed only if pedestrian or bicycle connections to adjacent lands are provided, and only if:

- a) i. the economic burden of street continuation to the applicant,
ii. the environmental impact, or
iii. site constraints that need to be overcome, will not be offset by corresponding benefits of street continuation to the community; or
- b) street continuation would result in disruption of community character of an adjacent neighborhood.

3 Sidewalks

Sidewalks within all growth districts shall be provided, with the exception of minor streets. Sidewalks shall be provided on both sides of the street.

The Planning Board may waive the requirement of sidewalks on both sides of the street and reduce it to one side of the street:

- a) to maintain community character;
- b) to minimize environmental impacts, or
- c) if the road has been designed to limit speed to no more than 25 mph.

4 Bicycle Facilities

The following bicycle facilities shall be provided for new public and private streets on both sides of the street:

Collector Road: Bike Lanes
Local Road: Paved Shoulders
Minor Road: Shared Lanes

The Planning Board may waive this requirement:

- a) to maintain community character;
- b) to minimize environmental impacts; or
- c) if the road has been designed to limit speed to no more than 25 mph.

5 Roads in Growth Area

5.1 In single-family developments:

1. Frontage: Proposed Town Ways in the Growth Area shall be accepted only if the average lot width on the street is no more than 125% of the minimum lot width required in that zone. Lot width is measured on the developed lots only and excludes open space. **Frontage on corner lots is determined by dividing total frontage of such lots by two.**

2. Lot area: Proposed Town Ways in the Growth Area shall be accepted only if the average lot area is no more than 125% of the minimum lot area required in that zone. Lot area is measured on the developed lots only and excludes open space, conservation easements, **and areas covered by deed restrictions that are enforceable by the Town.**

[Explanatory Note: By conditioning road acceptance on smaller lot sizes within the growth area, this ordinance encourages efficient land use within the designated growth zone. This measure can help to take pressure off of rural areas.]

5.2 In multi-family developments:

Residential Density: Proposed Town Ways in the Growth Area shall be accepted only if the residential density on the street is at least 75% of the maximum density allowed in that zone.

5.3 Sidewalks & Curbing: Proposed Town Ways in the Growth Area that are designated as local or collector roads are required to have sidewalks and curbing. Minor streets shall be required to have sidewalks and curbing, if necessary, for

- a) connectivity; or
- b) safety.

5.4 Street trees: Street trees shall be provided along all roads in the Growth Area with curbing and sidewalks and along all roads designated as local or collector roads. Trees can be either new or existing trees in the Right-Of-Way or the front setback area of each lot.

6 Roads in Rural Area

6.1 Proposed Town Ways in Rural Areas shall only be accepted if they are part of an approved Open Space Development / Conservation Subdivision.

[Explanatory Note: Although this provision does not mandate the conservation subdivision approach, it offers strong incentive for the developer to follow it.]

6.2 Existing trees shall be preserved in the Right-Of-Way and in the front setback area of each lot to the extent practical.

7 Existing Private Roads Offered as Town Way

Existing Private Roads offered for acceptance as a Town Way shall meet the Town Way requirements of this Ordinance and shall be approved by Town Council / Board of Selectmen. The Town Engineer shall provide an opinion on such requests to the Town Council / Board of Selectmen. Road acceptance is a discretionary decision by the Town Council / Board of Selectmen.

8 Acceptance Exceptions

The Town Council / Board of Selectmen has the prerogative to accept any Private Road if there are compelling reasons for it that benefit the public good. Considerations may include potential future development, connectivity, safety, and maintenance cost to the Town.

APPENDIX I: STREET STANDARDS

This Appendix outlines street standards necessary for dedication to the Town, and also provides **standards** for the development of private roads.

I.1 General Standards

I.1.1 Dead End Roads

I.1.1.1 Definition

Dead end roads are defined as roads that have a single outlet for vehicular traffic. The point of departure to determine the length of a dead end road is that point where there are two or more outlets to the road system of the rest of the community. The point of terminus to determine the length of a dead end road is that point in the associated road or driveway system that is furthest removed from the point of departure, and that serves three units or more. Measurements shall be made from edge of existing pavement along the centerline of the proposed road or driveway system.

The point where a driveway or road loop system starts shall not be considered the point of terminus of a dead end road.

A road system where the sole access is through a single intersection and where blockage of that intersection prevents access to the rest of the community shall be regarded a dead end road system.¹

I.1.1.2 Maximum Length of Dead End Street

Whether the street meets the definition of Collector, Local, or Minor Road, the maximum length of any dead end street shall not exceed 1,500 feet, or the length required to serve up to 25 units whichever comes first.

[Explanatory Note: Limiting new dead end streets to a maximum length is another effective tool that can encourage compact development and help to minimize habitat fragmentation.]

I.1.1.3 New Dead Ends off Long-Established Public Streets

The following roads are long-established public streets that exceed 1500 feet:

[Explanatory Note: Many Maine communities have existing dead-end public streets that pre-date any formal review process. This section is intended to identify those by name and to not preclude development of new dead-end extensions that would otherwise be prohibited.]

¹ Newly added clarification.

Long-established is defined as before the establishment of the local subdivision review process and establishment of the Planning Board.

The point of departure to determine the length of a new dead end street off the long-established streets listed in this section is the centerline intersection of the new road with that of the long-established street.

I.1.1.3. Waivers to maximum dead end road length

The Planning Board may waive the maximum length requirement for a dead end road as stipulated in I.2.1 and I.3.1, if it finds that:

- a. ten units or less are served by that road;
- b. the road has a maximum length of 2000 feet; and
- c. the applicant has demonstrated that overall environmental impact by the development will be reduced by building a longer road.

II.2 Stream Crossings

Movement of fish and wildlife through stream corridors is critical to the survival of individual organisms and the persistence of local populations. However, as long and linear ecosystems, streams are particularly vulnerable to fragmentation. The purpose of these standards is to address three goals:

- A. Fish and other Aquatic Organism Passage. Crossings will be installed to facilitate the movement of fish and other aquatic organisms including aquatic amphibians, reptiles, and invertebrates.
- B. Stream Continuity. Crossings will be installed in a manner that maintains appropriate channel substrates and hydraulic characteristics (water depth, turbulence, velocities, and flow patterns).
- C. Wildlife Passage. Crossings will be sized to facilitate the movement of wildlife species associated with stream ecosystems and others that utilize riparian areas as movement corridors.

All proposed stream crossings must also receive applicable permits from the Maine Department of Environmental Protection and US Army Corps of Engineers prior to start of construction.

II.2.1 Standards for small fish bearing streams

Small fish bearing streams include those streams that seasonally support one or more species of fish including stretches of intermittent streams that are only seasonally used by local fish populations.

- A. Crossing Structure. Bridges and pre-formed spans are preferred, but culverts and open-bottom arches are acceptable alternatives if they meet one the following specifications:
 - a. A culvert embedded in the stream substrate such that:
 - i. Concrete box culverts are embedded ≥ 2 feet into the substrate.
 - ii. Corrugated pipe arches are embedded ≥ 1 foot into the substrate
 - iii. Corrugated round pipe culverts are embedded ≥ 1 foot and at least 25% of diameter into substrate
 - iv. Smooth bore slipliners and smooth bore plastic culverts shall not be used in fish bearing streams
- B. Channel Span. To avoid channel constriction and changes to flow characteristics, any stream crossing structure should provide a minimum opening width maintained along its length of 1.2 times the bankfull width of the natural channel as measured based on the average of at least three typical channel widths at the proposed crossing location and immediately upstream and downstream of the proposed crossing. The channel should be measured from highest edge of bank scour to highest edge of bank scour (bankfull width).
- C. In-structure Substrate. The substrate within the structure should match the characteristics of the substrate in the natural stream channel (mobility, slope, stability, confinement) while maintaining water column depths similar to natural stream conditions to allow species passage.
- D. Structure Openness Ratio. The structure must maintain an openness ratio >0.25 meters. The openness ration is the cross-sectional area of a structure opening (in square meters) divided by its crossing length when measured in meters. For a box culvert, openness= (height x width)/length. Embedded portions of the structure are not included in the calculation of cross-sectional area for determining openness ration (refer to New England District, USACE Openness Ratio Spreadsheet attached).

II.2.2 Standards for larger brooks of local or regional significance

Brooks of local significance shall be determined by the Planning Board with guidance from the Maine Department of Inland Fisheries and Wildlife. Significant streams shall include those streams designated by the Town that support high value native brook trout habitat, Atlantic salmon habitat, habitat for rare, threatened, and endangered aquatic species, and provide significant landscape-level riparian connections.

- A. Crossing Structure. Bridges and open bottom structures are required that span the channel as well as both banks allowing dry passage for wildlife that move along the watercourse.

- B. Channel Span. The structure span should be at least 1.2 times the bankfull width and provide banks on one or both sides with sufficient headroom to provide dry passage for semi-aquatic and terrestrial wildlife. The structure shall be designed to take into consideration stream associated floodplains and be constructed to allow dry passage of wildlife at least 90% of the year.
- C. In-structure Substrate. The substrate within the structure should match the characteristics of the substrate in the natural stream channel (mobility, slope, stability, confinement) while maintaining water column depths similar to natural stream conditions to allow species passage. The substrate shall resist significant displacement during flood events.
- D. Structure Openness Ratio. The structure must maintain a headroom height of 4 feet above the grade of dry bank passage and an openness ratio ≥ 0.5 meters.